

THE EFFECT OF “TING-TING” GAME IN SPELLING AND COUNTING NUMBER ONE TO TEN AMONG YEAR 2 REMEDIAL PUPILS

By

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ABSTRACT

This study was inspired by a desire to explore alternative teaching for remedial pupils. Four pupils from Year 2 in Mathematics subject were chosen in this study and “ting-ting” game was introduced to them. Traditional way of teaching, such as ‘chalk & talk’, has been ineffective in teaching them. Interviews, diary notes, observation and pupils’ work were used in this study. The data were then analyzed. This study shows that “ting-ting” has helped three of the four pupils concerned in spelling and counting number one to ten. Jerry, a slow learner, was able to count number one until ten and spell number one and two correctly using this game. “Ting-ting” has made my lessons easily understood by them. I also found “ting-ting” game has made my teaching and learning fun and easy.

1.0 INTRODUCTION

Students are teacher’s main client and their good results will definitely provide teachers like me personal satisfaction. Results nowadays seem to be of importance and have great impact on the learning institution itself. But, sometimes the moral aspect of education seems to be neglected and I do not want myself to be placed in this category. What is more important for me is that I am able to help my pupils understand my teaching and help them remember the topics taught. That is why when I was assigned to teach the remedial classes early this year, I promised myself that I would do all my best to help the pupils concerned even though it would take up a lot of my time and effort.

SK Nanga Kesit is the school which I have been transferred to early last January. It is located 77 km from Sri Aman town. There are 135 pupils in this school and half of them are school boarders. Most of the pupils are from families who are farmers and they hail from several longhouses located along Lemanak River. This school is accessible both by gravel road and river and does not have clean piped water and electricity supply. Water supply is pumped from the nearest river and electricity is obtained from generators. There are 14 teachers and 8 supporting staffs in this school.

I received my Post-graduate Teaching Diploma from Batu Lintang Teachers' Training Institute, Kuching in 2005. I am trained to teach Living Skills, Science and Bahasa Melayu for primary education. When I was given the tasks to teach remedial classes for Year 2 till Year 5 in Mathematics and Bahasa Melayu, I was initially quite worried as I have never received any training or being exposed to teaching remedial pupils. The four Year 2 remedial pupils were recommended by their subject teacher. Before I start my lessons, a diagnostic test was carried out to find the problems of the pupils recommended by their subject teacher. I obtained this standard test from the *Buku Panduan Pelaksanaan Program Pemulihan Khas (Masalah Penguasaan 3 M)* (2003).

1.1 MY CONCERN

This study focuses on four Year 2 remedial pupils in Mathematics. William, Martin, Luke and Jerry (not their actual names) were recommended by their Mathematics teacher. When the diagnostic test was administered to them, they all failed the test. That indicated that all of them are eligible to attend my Mathematics remedial class.

There is pre-school class in my school but it seems that many of the pupils have not mastered the alphabet and numbers when they entered primary classroom. Since the syllabus for the remedial classes is different from the normal classes, I have to start my lesson with four of them just like they are in pre-school class. The objective of this research is to enable William, Martin, Luke and Jerry spell and count the numbers one to ten correctly.

I conducted the remedial class during the usual school hours. For the Mathematics remedial class, only an hour per week is allocated, that is, on Friday, from 10.20 – 11.20 am. The pupils are taken out from their Mathematics class and gathered in the School Resources Centre for my remedial class.

I started my lesson with topics, such as, recognizing colors, shapes, sizes and counting numbers one to ten. I did not encounter many problems in teaching topics related to colors, shapes and sizes. But when I asked them to count, they would simply say out the numbers (not in sequence). They also cannot recognize the numbers that I pointed at. Among these four pupils, I have more problems with Jerry. Jerry has the tendency to forget his lessons easily and has difficulty in understanding the lesson. Jerry seemed to be left far behind compared to the other pupils and this really worried me. If Jerry is not able to master the basic counting skill, it would be hard for me to proceed to the other topics.

All this while, I used charts, play cards, worksheets and the writing board when I have lessons with the remedial pupils in other subjects. Due to time

constraint for this Mathematics remedial class, which I only have one hour per week, I have never tried using educational-based games in my teaching. I decided to try to make a difference in teaching Mathematics remedial class by using games so that my teaching would be effective and interesting. After giving a lot of thought, I then decided to try out a new teaching game which I called “ting-ting.”

1.2 OBJECTIVES OF THE STUDY

The objective of this study is to help my four remedial pupils count and spell number one to ten correctly through “ting-ting” game.

1.3 RESEARCH QUESTION

- What is the effect of “ting-ting” game in spelling and counting number one to ten correctly among my four remedial pupils?

1.4 LIMITATIONS

This research only involved four pupils from Year 2 Mathematics remedial class.

2.0 WHAT IS “TING-TING” AND WHY?

“Ting-ting” is an educational-based game which I have adapted from the traditional folk game. The structure of the game is drawn on a piece of canvas as shown in Figure 1.



Figure 1: “Ting-ting” game drawn on canvas

Pupils will then jump on the canvas according to the sequence on each column. There is a ‘HOME’ and ‘FINISH’ column where pupils will start and end their game. Before the pupils start and when they finish the game, they have to say the word ‘**ting-ting!**’ loudly. I chose “ting-ting” game when I realized that my four pupils like to play this game during recess or after school. They liked it very much and would even invite other pupils to join them. In fact, I, myself like this game during my primary school days and this brought back fond memories.

Before the game starts, I would give each of them colorful buttons. These buttons are obtained from my School Resource Centre. The buttons are placed in boxes provided and two of the pupils would hold the boxes when playing the game (See Figure 2). The number of button(s) to be placed in the box is the same as the number of the column they jumped in.



Figure 2: Colorful buttons are placed in the box held by one of the pupil

When they are not able to say and spell the number correctly in the column that they jumped on, they will have to go back to the previous column as a form of punishment. The time will be recorded for each pupil to complete the game. The fastest pupil to finish all the 10 columns will be declared the winner.

Two main theories influenced the creation of this game. They are cooperative learning and behaviorism theory. Cooperative learning involves pupils (students) "in established, sustained learning groups or teams. The group work is an integral part of, not an adjunct to, the achievement of the learning goals of the class. Cooperative learning fosters individual accountability in a context of group interdependence in which pupils (students) discover information and teach that material to their group and, perhaps, to the class as a whole." The teacher's role changes as Alison King (1993) says, "from sage on the stage to guide on the side." Although they learned in groups, the students are evaluated individually on the learning they have achieved.

The behaviorism theory through the principle of reinforcement also formed the basis of "ting-ting" game. The rules of consequence that involved three-step sequences define the process of reinforcement. These steps are called, When-Do-Get.

- Step 1: When in some situation,
Step 2: Do some behavior,
Step 3: Get some consequence.

According to this principle, people learn several things during the process of reinforcement. First, they learn that certain behaviors (Step 2: Do) lead to consequences (Step 3: Get). This is the most obvious application of the rules of consequence. William, Martin, Luke and Jerry realized that if they do well in this “ting-ting” game (Do), they would get a reward (Rewarding Consequence) by moving forward to the next column (Get). When the number one to ten is wrongly spelled or counted (Do), the pupil would receive the Punishing Consequence by returning to the previous column (Get).

2.1 How is “ting-ting” game constructed and played?

Basic steps in constructing the “ting-ting” game are as stated below.

1. Draw 10 columns.
2. Draw a roof-shaped on top of column 1 and 10.
3. Write number 1 – 10 on top of each column.
4. The number spelling (one – ten) is written at the bottom of each column.
5. Colorful buttons are given to pupil to be placed in two boxes to be held by two other pupils (See Figure 3).
6. Pupils will start the game by saying the word ‘**ting-ting!**’ loudly.
7. Pupils will jump to the first column and say number 1 and spell it. Then, the pupils will put one button into the box provided. The same action is repeated for the rest of the numbers.
8. If the pupils fail to say, spell and place the wrong quantity of button(s), the pupils will have to go back to the previous column and repeat the same action.
9. The fastest pupil to finish all the columns, place the correct number of buttons and spell the number correctly will become the winner.



Figure 3: Pupils playing the game with their friends holding the box by the side

2.2 “Ting-ting” game plan

Table 2 shows the “ting-ting” game plan of this study.

Table 2: “Ting-ting” game action plan

Date/ Day (Minutes)	Activity	Remarks
15 June 2007 / Friday (60 minutes)	Counting numbers (one to ten) Write, spell and count	<ul style="list-style-type: none"> • Done in classroom • Diary notes • Interview
22 June 2007 / Friday	Counting numbers (one to ten) Write, spell and count	<ul style="list-style-type: none"> • Interview • Introduction of “ting-ting” game • Observation • Diary notes
29 June 2007 / Friday	Counting numbers (one to ten) Write, spell and count	<ul style="list-style-type: none"> • “Ting-ting” game being played again • Diary notes • Interview

3.0 METHODOLOGY OF THE STUDY

3.1 Action research plan

My action plans for this research are summarized in Table 3.

Table 3: Action research plan

No.	Date / Month	Activity
1.	March – April 2007	<ul style="list-style-type: none"> • Identifying problem • Collecting initial data • Composing Action Plan • Writing AR proposal
2.	May – July 2007	<ul style="list-style-type: none"> • Collect data • Data report • Analyze data • Writing initial report
3.	August – September 2007	<ul style="list-style-type: none"> • Writing final report • Research presentation

There are four methods used in collecting data in this study. Teacher’s diary, pupils’ work and interviews with the pupils concerned were used to obtain the relevant data. These data were then analyzed.

3.1 Diary writing

Diary writing was done to record the details and the development of my study from the beginning until the end. This would help me to do my reflection and write my conclusion.

3.2 Pupils’ Work

All the worksheets given to the pupils became the progressive record for my study. The worksheets help in exploring the effect of “ting-ting” game in spelling and counting number one to ten among the four pupils.

3.3 Interview

Informal interviews were carried out before and after the introduction of “ting-ting” game. They were conducted in Bahasa Melayu and then translated into English. Pupils’ interviews were then transcribed for further analysis.

3.4 Observation

Observations were carried out for three weeks, that is, before and after the introduction of “ting-ting” game. My research collaborator, Mr. Nelson, was with me on 29th June 2007 to assist in observing the pupils’ progress in spelling and counting number one to ten. The observational notes were then transcribed and analysed.

4.0 FINDINGS AND DISCUSSION

I started my study on 15th June 2007. It was Friday and I only had an hour with William, Martin, Luke and Jerry. Before I start the lesson, I asked them to sing the song ‘1 Little 2 Little 3 Little Fingers.’ I sang with them. They sang happily as it was a familiar song.

Then, I started my first interview with them, all four of them together. The questions posed to them were constructed before the interview. The interview questions were asked in Bahasa Melayu which I later translate to English. For spelling and counting the numbers, I just let them do it verbally. Pupils’ responses to my questions are as stated below.

Bolehkah anda mengira nombor 1 – 10?

(Can you count number 1 – 10?)

William : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Martin : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Luke : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Jerry : 1, 2, 3, 4, 5, 7, 9, 10

Can you spell number 1 – 10?

William : one, two, thee, fur, five, six, siven, eig, nine, ten
 Martin : one, two, tee, six, ten
 Luke : one, two, thre, for, ten
 Jerry : one.....aaa.....

Susahkah nak eja dan kira 1 – 10?

(Is it really difficult to spell and count 1 – 10?)

William : Susah, cikgu (Difficult, teacher)
 Martin : Susah (Difficult)
 Luke : Susah (Difficult)
 Jerry : Susah (Difficult)

Kenapa susah?

(Why is it difficult?)

William : Tak tahu, tak ingat (Don't know, cannot remember)
 Martin : (His eyes looked up towards the ceiling)
 Luke : Aaa...(raised his shoulder)
 Jerry : (Looked blankly at my face)

After the interview, I transcribed and analyzed my interview notes as shown in Table 4.

Table 4: Analyzed data of pupils' interview notes on 15th June 2007

Name	Question 1: Count 1 - 10										Number of correct answer
	1	2	3	4	5	6	7	8	9	10	
William	√	√	√	√	√	√	√	√	√	√	10 / 10
Martin	√	√	√	√	√	√	√	√	√	√	10 / 10
Luke	√	√	√	√	√	√	√	√	√	√	10 / 10
Jerry	√	√	√	√	√	X	√	X	√	√	8 / 10

Name	Question 2: Spell 1 - 10										Number of correct answer
	1	2	3	4	5	6	7	8	9	10	
William	√	√	X	X	√	√	X	√	√	√	7 / 10
Martin	√	√	X	X	X	√	X	X	√	√	5 / 10
Luke	√	√	X	X	X	X	X	X	√	√	4 / 10
Jerry	√	X	X	X	X	X	X	X	X	X	1 / 10

Table 4 shows that in counting number one to ten, only William, Martin and Luke could count the numbers correctly which means 75 percent (%) of the pupils could count correctly. Meanwhile, one of the pupils, Jerry, was able to

spell number 1 correctly. That really surprised me. I did not expect him to be able to spell any number correctly, due to his passive behavior in the class. Until today, Jerry is not able to recognize all the alphabets and his ability to spell number 1 correctly could be due to the fact that he repeated the word as spelled by his other friend.

This finding made me conducted another pre-implementation interview before I introduced “ting-ting” game to them. On the 22nd June 2007, I once again interview the pupils but this time, I did it separately. Table 5 shows the analysis of pupils’ interview on 22nd June 2007. My second interview shows that Jerry knew how to spell the number 1 correctly even though he still do not recognize the alphabet. I have underestimated him.

Table 5: Analyzed data of pupils’ interview notes on 22nd June 2007

Name	Question 1: Counts 1 - 10										Number of correct answer
	1	2	3	4	5	6	7	8	9	10	
William	√	√	√	√	√	√	√	√	√	√	10 / 10
Martin	√	√	√	√	√	√	√	√	√	√	10 / 10
Luke	√	√	√	√	√	√	√	√	√	√	10 / 10
Jerry	√	√	√	√	√	X	√	X	√	√	8 / 10
Name	Question 2: Spells 1 - 10										Number of correct answer
	1	2	3	4	5	6	7	8	9	10	
William	√	√	X	X	√	√	X	√	√	√	7 / 10
Martin	√	√	X	X	X	√	√	X	√	√	6 / 10
Luke	√	√	X	X	X	√	X	X	√	√	4 / 10
Jerry	√	X	X	X	X	X	X	X	X	X	1 / 10

After the second interview was conducted, I introduced the four pupils to the “ting-ting” game. Firstly, I explained and demonstrated to them how the game was to be played. I also mentioned to them that they would have to verbally spell the number correctly in order to move to the next column. The pupils looked very anxious to try the game and all of them wanted to be the first one to play the game. They all looked very happy when playing the game. They also tried very hard to memorize the spelling and counting the buttons right so that they would not have to go back to the previous column. While the pupils were playing “ting-ting”, I made the following observation and transferred my data into Table 6.

Table 6: Result of “ting-ting” game in terms of spelling and counting number one to ten (20th June 2007)

William				Martin			Luke			Jerry			
No.	Spell	Count	Time	Spell	Count	Time	Spell	Count	Time	Spell	Count	Time	
1	√	√	2' 35"	√	√	2' 50"	√	√	3' 30"	√	√	5' 02"	
2	√	√		√	√		√	√		√	X		X
3	X	√		X	√		√	X		√	X		X
4	√	√		√	√		√	X		√	X		X
5	√	√		X	X		X	√		√	X		X
6	√	√		√	X		X	√		X	X		X
7	X	X		√	√		√	X		X	X		X
8	X	X		X	X		X	X		X	X		X
9	X	X		X	X		X	√		X	X		X
10	√	X		√	X		X	√		X	X		X

On the 29th June 2007, the pupils had the chance to play the game twice and they all looked very excited this time. I did not have to show them how to play the game because they all seem to have mastered it. Whenever I started saying the word “ting-ting”, they would spell the numbers spontaneously. This reminded me of classical conditioning in Behaviorism Theory. Whenever I said the word “ting-ting”, the pupils would automatically spell the number one to ten.

Table 7 shows the William, Martin, Luke and Jerry’s result in spelling and counting number 1 – 10 after they had played “ting-ting” twice on 29th June 2007.

Table 6: Result in spelling and counting after playing “ting-ting” twice (29th June 2007)

William				Martin			Luke			Jerry			
No.	Spell	Count	Time	Spell	Count	Time	Spell	Count	Time	Spell	Count	Time	
1	√	√	1' 45"	√	√	2' 15"	√	√	2' 33"	√	√	4' 57"	
2	√	√		√	√		√	√		√	X		√
3	√	√		√	√		√	√		√	X		X
4	√	√		√	√		√	√		√	X		X
5	√	√		√	√		√	X		√	X		X
6	√	√		√	√		√	√		√	X		X
7	√	√		√	√		√	X		√	X		X
8	√	√		X	√		√	X		X	X		X
9	√	√		√	√		√	√		√	X		X
10	√	√		√	√		√	√		√	X		X

When it was Jerry’s turn to play “ting-ting”, he only managed to spell number one and count the number one and two only. For the rest of the numbers, he just stood still, spelled and counted wrongly. His other friends pitied him and helped him to spell and count correctly in order to enable him to move to the other column. I just let his friends helped him to count and spell the numbers. The pupils were practicing cooperative learning in this particular lesson. “They worked with their peers to accomplish a shared or common goal through interdependence among all group members rather than working alone”, that is, helping Jerry moved to the other column.

Before the end of the lesson, they were all given a worksheet to answer. This worksheet is used to check their understanding of this topic. There are 23 fill-in-the blanks and those who obtain less than 12 correct blanks are considered to have failed in this topic. William and Martin obtained 100%, Luke - 89%, and Jerry only managed to obtain 9% (1 correct blank). William, Martin, Luke and Jerry’s worksheets are shown in Figure 4 – Figure 7.

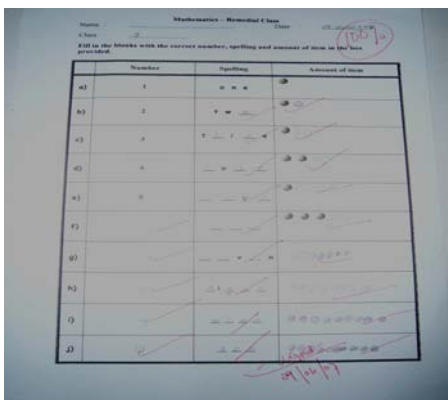


Figure 4: William’s answers after playing “ting-ting” three times

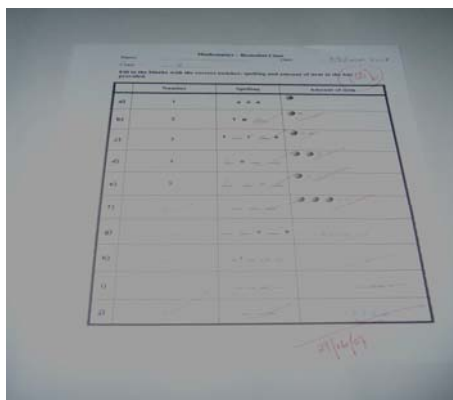


Figure 5: Martin’s answers after playing “ting-ting” three times

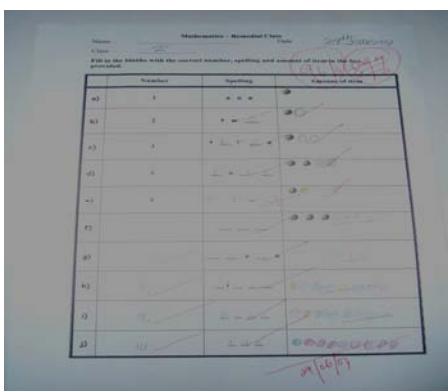


Figure 6: Luke’s answers after playing “ting-ting” three times

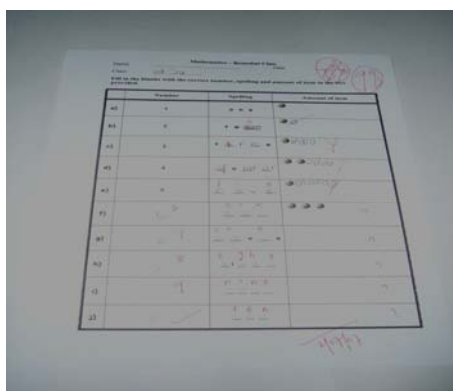


Figure 7: Jerry’s answers after playing “ting-ting” three times

The answers in the worksheets show that all of them obtained better results compared to the verbal exercise which they have to spell the numbers in the columns they jumped in. Luke’s worksheet showed that he only got the spelling mistake for number five (See figure 8).

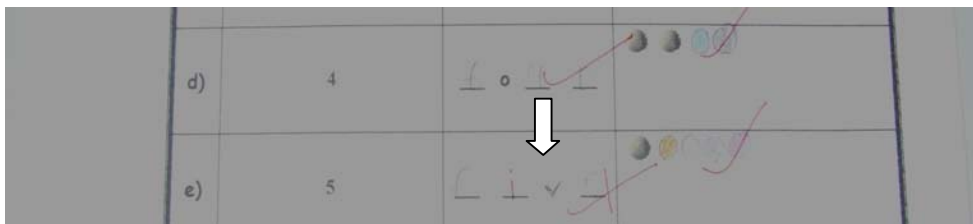


Figure 8: Luke’s wrong answer for spelling number five

As for Jerry, even though he got it right for counting number two, I did not give Jerry any mark for his answer in spelling number two because he copied the first two alphabets and put an ‘o’ in the blank (See Figure 9). I noticed him copying from William who was seated next to him.

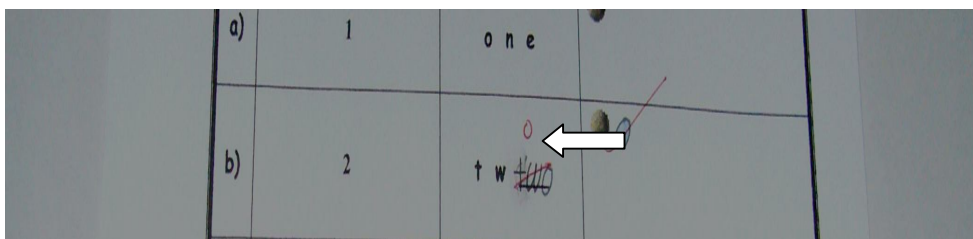


Figure 9: Jerry’s wrong answer for spelling number two

William, Martin, Luke and Jerry were able to do well in the written exercise compared to when playing “ting-ting”. Perhaps, the jumping activity involved in this “ting-ting” game and the anxiety caused had made them spell and count the number wrongly compared to written exercise.

5.0 REFLECTION

I am very happy and relieved that my introduction of “ting-ting” game enabled three of the four pupils spell and count number 1 to 10 correctly. Luke only had the mistake in spelling the number 5. Meanwhile, Jerry, was able to spell number 1 and count number 1 and 2 correctly.

I also discovered that introducing educational-based game like “ting-ting” had made my teaching of this topic easier and more effective. Besides that, the pupils enjoyed playing it and looking forward to attend my class. Now, whenever I say, “ting-ting”, they will start to spell the number 1 to 10 spontaneously. Through this research, I also realized that “ting-ting” had instilled a lot of good values in my teaching and learning. Learning becomes

more fun and enjoyable. Jerry, a slow learner, had shown improvement and this itself brings me satisfaction.

When playing the "ting-ting" game, I noticed that my pupils were prone to forget some spelling because they were very excited and enjoyed playing the game. Thus, they did not bother to spell and count correctly. Their main objective was to finish the game as quickly as they could so that they could play another round of "ting-ting." At times, I have to interfere to remind them about spelling or counting correctly and the punishment for not doing them correctly. My reminders made them more careful when playing the game. This showed that strict observation should be exercised when playing this game in order to be effective.

"Ting-ting" game had made my teaching more interesting and enjoyable. The four pupils looked forward in attending my classes. They always ask me when they could play the game again. I also enjoyed teaching the remedial pupils because the objectives of the lesson were achieved at the end of the lessons. "Ting-ting" game made me realized that educational-based game is more effective in teaching remedial pupils. Perhaps because of their young age, my pupils still preferred the 'play-time' elements to be included in their lessons. Even though, I did not achieve 100% success, at least all of them could produce better results compared to before the introduction of "ting-ting." For improvement, I plan to modify the game by playing the game on the table, make the canvas smaller and exclude the jumping activity so that the players will be more relax and be able to concentrate in spelling and counting the numbers.

BIBLIOGRAPHY

- Brualdi, A.C. (1996). *Multiple Intelligences: Gardner's Theory*. Retrieved from <http://ericae2.educ.cua.edu/digests/tm9601.htm>.
- Chuah Kim Hwa. (2007). *Teknik Pengumpulan data kualitatif penyelidikan tindakan*. Bahan Kursus/ Bengkel Penyelidikan Tindakan Peringkat Asas (Fasa II) Tahun 2007 di bawah Kursus Pendek Kelolaan Institut, Institut Perguruan Batu Lintang, 9-11 Mei 2007 di Pusat Kegiatan Guru, Sri Aman.
- Kementerian Pendidikan Malaysia. (2003). *Buku Panduan Pelaksanaan Program Pemulihan Khas (Masalah Penguasaan 3 M)*. (Cetakan 2). Kuala Lumpur: Kementerian Pendidikan Malaysia.
- Kruse, E. (n.d). *Gagne's Nine Events of Instruction: An Introduction*. Retrieved from http://www.e-learningguru.com/articles/art3_3.htm.

Jasmine Hayward: The effect of “ting-ting” game in spelling and counting number one to ten among Year 2 remedial pupils

Marshall, C. & Rossman, G. B. (1999). *Designing Qualitative Research*. (3rd Ed.) Thousand Oaks, California: Sage Publications.